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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,308	01/27/2004	Kas Kasravi	57391/9	1219

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EXAMINER	
SAINT CYR, LEONARD	
ART UNIT	**PAPER NUMBER**
2626	
MAIL DATE	**DELIVERY MODE**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/766,308	KASRAVI ET AL.	
	Examiner	Art Unit	
	Leonard Saint-Cyr	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-32 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1 – 32 are rejected under 35 U.S.C. 102(a) as being anticipated by Gillis (US Patent 6,523,026).

As per claims 1, 23, 26, Gillis teaches comparing semantic content of two or more documents, comprising:

accessing two or more documents ("source and target domains"); performing a linguistic analysis on each document ("computing a set of vectors"; col.10, lines 9 – 17); col.11, lines 36 – 40);

outputting a quantified representation of the semantic content of each document ("semantic vectors"; col.39, lines 14 – 20); and

comparing the quantified representations using a defined algorithm ("summary vectors to be compared"; col.39, line 19, and 20; col.42, lines 2, and 3).

As per claim 2, Gillis further discloses that the linguistic analysis comprises sentence analysis ("sentence in the individual documents"; col.43, lines 43 – 46).

As per claim 3, Gillis further discloses that the sentence analysis comprises a syntactic analysis ("preferred stop list word include in the vectorization") and a semantic analysis ("semantic similarity"; col.39, lines 14 – 20; col.35, lines 4 – 6).

As per claim 4, Gillis further discloses that the quantified representation of a semantic content is a semantic vector ("semantic vectors"; col.39, lines 14 – 20).

As per claim 5, Gillis further discloses that the semantic vector can have multiple components (col.39, line 63 –col.40, line 1).

As per claim 6, Gillis further discloses that each component can have multiple dimensions ("n dimensional space"; col.39, line 63 –col.40, line 1).

As per claim 7, Gillis further discloses that each component of the semantic vector includes one or more text values ("vector values, representing the natural term"; col.36, lines 34 – 36).

As per claim 8, Gillis further discloses that each text value can have one or more numerical values associated with it ("vector values, representing the natural term"; col.36, lines 34 – 36).

As per claim 9, Gillis further discloses that each component of the semantic vector has three values:

a word or phrase appearing in the document or a synonym of said word or phrase (col.11, line 8);

a weighting factor associated with said word or phrase or synonym ; and a frequency value ("frequency related weightings to terms in the computation of summary vectors"; col.41, lines 40 – 43).

As per claim 10, Gillis further discloses that each component of the semantic vector has two values: a word or phrase appearing in the document or a synonym of said word or phrase (col.11, line 8); and

a weighting factor associated with that word or phrase ("frequency related weightings to terms in the computation of summary vectors"; col.41, lines 40 – 43).

As per claim 11, Gillis further discloses that the semantic vector is a multi-dimensional vector defined by the content of a semantic net ("n dimensional semantic space"; col.39, line 63 – col.40, line 1).

As per claim 12, Gillis further discloses that the content of the semantic net is augmented by relative weights, strengths, or frequencies of occurrence of the features within the semantic net ("frequency related weightings to term in the computation of summary vectors"; col.41, lines 40 - 46).

As per claim 13, Gillis further discloses that the output of said defined algorithm is a measure of at least one of semantic distance, semantic similarity, semantic dissimilarity, degree of patentable novelty and degree of anticipation ("semantic similarity"; col.4, lines 1 – 3).

As per claim 14, 24, 27, Gillis teaches comparing two or more documents, comprising:

linguistically analyzing two or more documents("computing a set of vectors"; col.10, lines 9 – 17); col.11, lines 36 – 40);

generating a semantic vector associated with each document("semantic vectors"; col.39, lines 14 – 20); and

comparing the semantic vectors using a defined metric ("summary vectors to be compared"; col.39, line 19, and 20; col.42, lines 2, and 3).

As per claim 15, 25, 32, Gillis further discloses that the defined metric is one of: Sqrt (f 1 2 + f 2 2 + f 3 2 + f 4 2 + + f (N - 1) 2 f N 2) n * 100 ,wherein f is a difference in frequency of a common term between two documents and n is the number of terms those documents have in common; or Sqrt(sum((w-Delta)A2*w-Avg))/(Log(n)A3*1000), wherein w-Delta is the difference in weight between two common terms, w-Avg is the average weight between two common terms, and n is the number of common terms,

between two documents (" semantic distance between two domains using Euclidean distance formula; col.56, lines 31 – 52).

As per claim 16, Gillis further discloses that a common term between two documents includes two terms that are synonyms (col.11, line 8).

As per claims 17, 28, Gillis further discloses that one or more of said two or more documents are located using an autonomous software or 'bot program ("software programs"; col.10, lines 9 – 17; col.25, lines 57 – 67).

As per claims 18, and 29, Gillis further discloses automatically analyzes each document in a defined domain (source and target domains) or network by executing a series of rules and assigning an overall score to the document ("average of component values"; col.10, lines 9 – 17; col.41, line 66 –col.42, line 25).

As per claim 19, Gillis further discloses that all documents with a score above a defined threshold are linguistically analyzed ("generate term vectors and accept only records that match all the categories beyond some minimum threshold"; col.46, line 65 – col.47, line 11).

As per claims 20, and 30, Gillis further discloses that the semantic vector is a quantification of the semantic content of each document ("semantic vectors"; col.39, lines 14 – 20).

As per claim 21, Gillis further discloses that the semantic vector can have multiple components, and each component can have multiple dimensions ("n dimensional semantic space"; col.39, line 63 – col.40, line 1).

As per claim 22, Gillis further discloses that each component of the semantic vector has a word or phrase appearing in the document or a synonym of said word or phrase (col.11, line 8);

a weighting factor associated with said word or phrase or synonym ; and a frequency value ("frequency related weightings to terms in the computation of summary vectors"; col.41, lines 40 – 43).

As per claim 31, Gillis further discloses that the output of said defined algorithm is a measure of at least one of semantic distance, semantic similarity, semantic dissimilarity, degree of patentable novelty and degree of anticipation ("semantic similarity"; col.4, lines 1 – 3).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cox et al., (US Patent 6,996,575) teach a computer-implemented system and method for text-based document processing.

Sommer et al., (US Patent 6,847,966) teach a method and system for optimally searching a document database using a representative semantic space.

Bradford et al., (US Patent 7,113,943) teach a method for document comparison and selection.

Corey et al., (US Patent 5,987,446) teach searching large collections of text using multiple search engines concurrently.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard Saint-Cyr whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
05/10/07

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER